

Comparisons of Job Characteristics

Focus Occupation: **Conservation Scientists (19-1031)**

Associated Occupation: **Hydrologists (19-2043)**

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 66

Focus Occupation: Conservation Scientists (19-1031)

Associated Occupation: Hydrologists (19-2043)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Mathematics	9.2	17.7	10.1	<<	Extensive education and/or training may be required
Engineering and Technology	5.7	17.4	10.0	<<	Extensive education and/or training may be required
Geography	3.9	16.7	14.3	<	Expanded education and/or training may be required
Physics	4.3	15.7	7.5	<<	Extensive education and/or training may be required
Chemistry	4.8	15.6	7.8	<<	Extensive education and/or training may be required
Biology	3.7	13.6	16.2	>	Current knowledge level is likely sufficient
Design	5.2	12.6	8.8	<<	Extensive education and/or training may be required
Law and Government	5.9	11.3	11.4	0	Current knowledge level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 84

Focus Occupation: Conservation Scientists (19-1031)

Associated Occupation: Hydrologists (19-2043)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Critical Thinking	10.8	14.5	12.8	<	A higher skill level may be required
Science	4.5	13.0	9.3	<<	Extensive development of skills in this area may be required
Mathematics	6.2	12.8	7.4	<<	Extensive development of skills in this area may be required

Programming	2.2	6.5	3.0	<<	Extensive development of skills in this area may be required
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The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 92			
Focus Occupation: Conservation Scientists (19-1031) Associated Occupation: Hydrologists (19-2043)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Inductive Reasoning	10.2	14.6	12.2	<	Some improvement in abilities may be required
Written Comprehension	11.0	14.6	13.7	0	Current ability level may be sufficient
Written Expression	9.8	14.1	12.1	<	Some improvement in abilities may be required
Problem Sensitivity	11.1	13.9	13.0	0	Current ability level may be sufficient
Mathematical Reasoning	6.3	13.8	8.1	<<	Extensive improvement in abilities may be required
Deductive Reasoning	10.6	13.4	12.6	0	Current ability level may be sufficient
Flexibility of Closure	7.8	12.0	8.8	<<	Extensive improvement in abilities may be required
Originality	7.6	11.5	10.1	<	Some improvement in abilities may be required
Fluency of Ideas	7.6	11.3	9.6	<	Some improvement in abilities may be required
Category Flexibility	9.0	11.2	10.2	0	Current ability level may be sufficient
Number Facility	6.3	10.8	8.1	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 78
Focus Occupation: Conservation Scientists (19-1031) Associated Occupation: Hydrologists (19-2043)		
Work Activities	Exclusivity of Activity	
Adhere to safety procedures	12	
Advise clients or customers	19	
Advise governmental or industrial personnel	28	
Analyze ecosystem data	69	
Analyze scientific research data or investigative findings	27	
Classify plants, animals, or other natural phenomena	69	
Collect scientific or technical data	30	

Collect statistical data	47
Communicate technical information	4
Conduct field research or investigative studies	52
Confer with research personnel	50
Confer with scientists	54
Develop or maintain databases	30
Develop plans for programs or projects	31
Develop policies, procedures, methods, or standards	21
Develop tables depicting data	33
Direct and coordinate scientific research or investigative studies	27
Direct implementation of new procedures, policies, or programs	60
Explain complex mathematical information	30
Interpret aerial photographs	69
Maintain records, reports, or files	5
Make decisions	24
Make presentations	13
Plan scientific research or investigative studies	48
Prepare reports	8
Prepare technical reports or related documentation	22
Read maps	42
Recommend further study or action based on research data	60
Record test results, test procedures, or inspection data	48
Resolve engineering or science problems	46
Use building or land use regulations	65
Use computers to enter, access or retrieve data	3
Use knowledge of investigation techniques	16
Use library or online Internet research techniques	21
Use mathematical or statistical methods to identify or analyze problems	30
Use quantitative research methods	35
Use relational database software	26
Use scientific research methodology	21
Use spreadsheet software	18
Use teaching techniques	29
Use word processing or desktop publishing software	17
Write research or project grant proposals	33
Write scholarly or technical research papers	36

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 93

Focus Occupation: Conservation Scientists (19-1031)
Associated Occupation: Hydrologists (19-2043)

Tools and Technologies

Exclusivity

Audio and visual equipment	4
Cameras	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Industry specific software	1
Information exchange software	1
Land surveying instruments	19
Length and thickness and distance measuring instruments	2
Measuring and layout tools	3
Network applications software	1
Sampling equipment	12
Soil measuring equipment	20

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.